

REMARKS

Claims 1-4, 11-13 and 15-18 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,057,080 to Brunsvold et al in view of U.S. Patent No. 7,214,470 to Araki et al.

Brunsvold et al was cited as disclosing a top antireflective layer and method of making a patterned photoresist composition by applying a photoresist to a silicon substrate and overcoating the photoresist with an antireflective film. Brunsvold et al was further cited as teaching use of perfluorinated polymers in the top antireflective layer for ease of removal with an alkaline developer. The Examiner relied on Araki et al as teaching fluorinated polymers for use as a base polymer in an antireflective coating having a structure said to be within the scope of the rejected claims. The reason for rejection was that it would have been obvious to use the fluorinated polymers of Araki et al in the antireflective layer of Brunsvold et al so as to maintain a low refractive index and improve optical characteristics as taught by Araki et al (citing column 18, lines 61-65 and the Abstract).

Applicants traverse, and respectfully request the Examiner to reconsider for the following reasons.

The invention of Brunsvold et al, as described at col. 3, lines 45-49, was made to “overcome the deficiencies of fluorocarbon polymers which do provide nearly ideal refractive indexes (on the order of 1.3-1.4) but do not offer solubility or strippability in aqueous media.” Further, Brunsvold et al “have tailored a number of different compositions which overcomes these deficiencies.” That is, the invention of Brunsvold et al was made to overcome deficiencies associated with the use of fluorocarbon polymers by providing another approach. That is,

Brunsvold et al instructs that fluorocarbon polymers having low refractive indexes cannot be used for replacing the top anti-reflective coating for the photoresist layer described therein.

On the other hand, although Araki et al teaches the use of a fluorocarbon polymer as an anti-reflective layer, there is no suggestion in Araki et al of providing such an anti-reflective layer on a photoresist layer.

Therefore, considering the clear negative teaching of Brunsvold et al, a skilled artisan would have no apparent reason to use a fluorocarbon polymer having a low reflective index such as that disclosed by Araki et al for the top anti-reflective coating of a photoresist layer of Brunsvold et al.

For the above reasons, it is respectfully submitted that the present claims are patentable over Brunsvold et al in view of Araki et al, and withdrawal of the foregoing rejection under 35 U.S.C. § 103(a) is respectfully requested.

Withdrawal of all rejections and allowance of claims 1-4, 11-13 and 15-18 is earnestly solicited.

In the event that the Examiner believes that it may be helpful to advance the prosecution of this application, the Examiner is invited to contact the undersigned at the local Washington, D.C. telephone number indicated below.

RESPONSE UNDER 37 C.F.R. § 1.116
Application No.: 10/579,855

Attorney Docket No.: Q94609

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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